



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,082	03/03/2006	Andreas Reinhard	27793-00099USPX	1172
23932	7590	09/12/2006	EXAMINER	
JENKENS & GILCHRIST, PC 1445 ROSS AVENUE SUITE 3200 DALLAS, TX 75202			HOOK, JAMES F	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

98

Office Action Summary	Application No. 10/543,082	Applicant(s) REINHARD ET AL.	
	Examiner James F. Hook	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/21/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claims 1, 10, 13, and 14 are objected to because of the following informalities: In all of these claims the term "it's" or "it" such as claim 1 line 4 "in its longitudinal direction it has" the term it is referring to some structure but it is not clear whether it refers to the thin walled fluid ducts or the anti buckling device, and should be clarified; in claim 10, line 3 "wherein its" is unclear for the same reason as mentioned for claim 1; in claim 13 line 3 "wherein it" it is also unclear as to what "it" is referring to; and in claim 14 line 3, the same is true "wherein it" is unclear with respect to what "it" refers as set forth above. Appropriate correction is required.

Claims 17 and 18 objected to because of the following informalities: the number "9" is provided in the claim and is believed to be a character reference number and should either be removed or placed in parenthesis. However, if this is not the case, and such is an attempt to incorporate limitations from claim 9, such would be an improper multiple dependent claim in that two claims cannot be used in a single dependent claim to claim limitations from each of the claims, but such position will only be taken if applicant responds to this objection by stating such was an attempt to claim the subject matter of claim 9, at which point the examiner will change the objection under informality to one of improper multiple dependency. Appropriate correction is required.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification sets forth a range of 30-80 Shore for the elastic material hardness, but does not appear to set the lower limit lower than 30 Shore and likewise it does not seem to support a range of 20 and 60 Shore as set forth in claim 16, or the lower limit being 20 as in claim 15; also in claim 10 the claim recites "multiple rotational symmetry" which appears broader than the specification which sets forth triple rotational symmetry, and therefore there would be no support in the specification for the broader claim limitation of multiple which is not limited to three way symmetry.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "the envelope" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the envelope" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fuhrmann.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by MacDonald.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rains.

Claims 1-3, 6, 8, 10, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nichols. The patent to Nichols discloses the recited anti buckling device for thin walled ducts comprising in the longitudinal direction several ribs 27 whereby space between two adjacent ribs forms a groove, the cross section of the device fills the cross section of a duct in such a way that the duct walls lie on the ribs at a buckling point where inherently the walls cannot penetrate into the grooves, the grooves remain open and permeable for fluids when the device is bent, fluids can circulate through the grooves of the device, in the longitudinal direction the ribs are interrupted to allow the grooves to be connected by way of transverse connections, where such defines structures which are knobs, where the envelope of the ends of the ribs creates an

Art Unit: 3754

envelope which matches the interior of the tube, the device is deformable, and consists of a flexible polymer which is inherently elastic in nature.

Claims 1, 4-6, 8, 11, 13, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Gauthier. The patent to Gauthier discloses the recited anti buckling device for thin walled ducts comprising in the longitudinal direction several ribs 2a whereby space between two adjacent ribs forms a groove, the cross section of the device fills the cross section of a duct in such a way that the duct walls lie on the ribs at a buckling point where inherently the walls cannot penetrate into the grooves, the grooves remain open and permeable for fluids when the device is bent, fluids can circulate through the grooves of the device, it is formed such that a reinforced plastic pipe can be inserted in the device, where the envelope of the ends of the ribs creates an envelope which matches the interior of the tube, the device is deformable, and consists of a flexible polymer which can be an elastomer.

Claims 1, 6, 8, 11-13, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Schrock. The patent to Schrock discloses the recited anti buckling device for thin walled ducts comprising in the longitudinal direction several ribs 13 whereby space between two adjacent ribs forms a groove, the cross section of the device fills the cross section of a duct in such a way that the duct walls lie on the ribs at a buckling point where inherently the walls cannot penetrate into the grooves, the grooves remain open and permeable for fluids when the device is bent, fluids can circulate through the grooves of the device, where the envelope of the ends of the ribs creates an envelope which matches the interior of the tube, the device is deformable,

Art Unit: 3754

and consists of a flexible polymer which can be an elastic material, the thin walled duct 11,12 includes a woven layer 12 where the device is deformable and can adjust itself to changes in the cross section of the core induced by some pressure, where the elastic material has a Shore hardness of 55, and where the ribs are applied to the inside of a duct wall.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols. The patent to Nichols discloses all of the recited structure with the exception of forming the envelope encompassed by the device to be lenticular in shape, and disclosing the Shore hardness of the material making up the device, however, it is considered an obvious choice of mechanical design to shape the member in any shape including lenticular such that it defines a lenticular shaped envelope where such would only require routine skill in the art to change the devices shape, and it would have been an obvious choice of mechanical expedients to modify the hardness of the device to meet any Shore hardness as such would only require routine experimentation to arrive at optimum values as such is an obvious choice of mechanical expedients.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gauthier in view of Atwell. The reference to Gauthier discloses all of the recited structure with

Art Unit: 3754

the exception of forming the thin walled conduit with a woven layer. The patent to Atwell discloses that it is old and well known in the art to form thin walled ducts with a woven fabric layer to provide some strength to the wall. It would have been obvious to one skilled in the art to modify the thin walled conduit in Gauthier by providing a woven layer to provide added strength as suggested by Atwell where such would prevent premature failure of the thin walled duct from rupture thereby saving money.

Claims 2, 3, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrock in view of Sharp. The patent to Schrock discloses all of the recited structure with the exception of forming the ribs of knobs instead. The patent to Sharp discloses that it is old and well known in the art to form stand off devices with either a plurality of ribs or knobs. It would have been obvious to one skilled in the art to modify the ribs in Schrock by substituting knobs therefore as suggested by Sharp which teaches the equivalence of using knobs in place of ribs which teaches the equivalence of the two types of structures, where such would allow for more flexibility in the device.

Conclusion

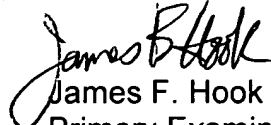
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Bennett, Beisemann, Calvet, Bergmann, Arroyo, Beran, and Tada disclosing state of the art anti buckling devices and protectors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

Art Unit: 3754

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James F. Hook
Primary Examiner
Art Unit 3754

JFH